CLAIMS

A composition comprising:

(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:

$$MPc \underbrace{ \left(SO_3H \right)_x}_{ \left(SO_2NR^3R^4 \right)_2}$$

Formula (1)

10 wherein:

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M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula

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R¹, R² and R³ independently are H or optionally substituted C₁₋₄alkyl;

R⁴ is optionally substituted C₁₋₄-hydroxyalkyl;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4;and

the substituents, represented by x, y and z, are attached to a $\boldsymbol{\beta}$ position on the phthalocyanine ring; and

- (b) a liquid medium which comprises water, water and an organic solvent or an organic solvent free from water.
- 2. A composition according to claim 1 wherein R¹, R² and R³ independently are H or methyl.

- 3. A composition according to either claim 1 or claim 2 wherein R^4 is unsubstituted C_{14} -hydroxyalkyl.
- 4. A composition according to any one of the preceding claims wherein R¹, R² and R³ are all H and R⁴ is -CH₂CH₂OH.
 - 5. A composition according to any one of the preceding claims wherein M is Cu.
- 6. A composition according to any one of the preceding claims wherein x is less than 10 1.
 - 7. A composition according to any one of the preceding claims wherein at least 70% by weight of the total amount of phthalocyanine dye in said composition is of Formula (1).
- 15 8. A composition according to any one of the preceding claims wherein at least 90% by weight of the total amount of phthalocyanine dye in said composition is of Formula (1).
 - 9. A composition according to any one of the preceding claims which is an ink suitable for use in an ink-jet printer.
 - 10. A mixture of dyes of Formula (2) and salts thereof:

 $\mathsf{MPc} \underbrace{ \left(\mathsf{SO_3H} \right)_{\mathsf{x}}}_{\left(\mathsf{SO_2NR}^{1}\mathsf{R}^{2} \right)_{\mathsf{y}}} \\ \left(\mathsf{SO_2NR}^{3}\mathsf{R}^{4} \right)_{\mathsf{z}}$

Formula (2)

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wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula

R1, R2 and R3 independently are H or optionally substituted C14alkyl;

R⁴ is optionally substituted C₁₋₄-hydroxyalkyl;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4;and

the substituents, represented by x, y and z, are attached to a β position on the phthalocyanine ring.

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- 11. A mixture of dyes according to claim 10 wherein R¹, R² and R³ are all H and R⁴ is –CH₂CH₂OH.
- 12. A mixture of dyes according to either claim 10 or claim 11 wherein x is less than 1.

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- 13. A process for forming an image on a substrate comprising applying an ink suitable for use in an ink-jet printer, as described in claim 9, thereto by means of an ink-jet printer.
- 14. A material printed with a composition according to any one of claims 1 to 9, dyes according to any one of claims 10 to 12 or by a process according to claim 13.
 - 15. A material according to claim 14 which is a photograph printed using a process according to claim 13.
- 25 16. An ink-jet printer cartridge comprising a chamber and an ink wherein the ink is in the chamber and the ink is as defined in claim 9.